

THOUGHTS ON A REVISION OF THE TRANSCRIPTION RULES OF THE MONUMENTA MUSICAE BYZANTINAE

Jørgen Raasted

The transcription method of the MMB was codified in Tillyard's "Handbook" 1935 (reprinted 1970). In his brief postscript to the reprint Oliver Strunk pointed out that "it will someday be necessary to reconsider it (i.e. the method) in the light of our rapidly widening experience", but in 1970 he tactfully avoided going into any details. Already in 1958 the Editorial Board had decided to suspend the "Transcripta" - for many reasons, of which only a minor part had to do with our conventions of transcription.

For subsequent modifications of the transcription rules, see references in Handbook, repr. 1970, p.51.

At a small colloquium which took place in connection with the meeting of the Editorial Board (Copenhagen, August 1958) one of the items on the agenda was "The problems concerning transcriptions. (Tillyard)". Unfortunately the first pages of the notes taken by Nanna Schiødt during the discussions have been lost years ago, so we have no record of what Tillyard actually said. The printed "Report" (Byzantion 28 (1958), 1959, pp. 519 sqq.) mentions briefly (p. 521) that Tillyard "developed his points of view concerning the Transcripta, especially the use of key-signatures, of accidentals, of bars in the staff and dots in the text".

According to the Report, "it was decided to defer for the time being the continuation of the Transcripta series in view of the more urgent necessity of preparing and publishing (four specified) volumes of the series Subsidia and of some further volumes of the Main Series".

Finally it can be seen from the Report (p.523) that "the members agreed that transcriptions from the Round Notation should, as far as possible, be convertible into the original notation, possibly by the use of capitals above the staff to indicate "Great Signs" (Strepton, Tromikon, etc)".

It is my recollection from the meetings that other reasons for the temporary delay of transcriptions were put forward:

- (a) that we ought to know the MS-tradition much better, to enable a reasonable choice of MSS to be used (Strunk's point),
- (b) that studies of the verse-structure (e.g. of Stichera) should be carried out in view of another presentation of the texts (my own pet - cf. "Some observations on the structure of the Stichera in Byzantine rite", published in the same volume of Byzantion, pp. 529-41).

Now, in 1986, we are still under an obligation to reconsider these rules of transcription, and to discuss some aspects of a revision. The five main topics of the present paper have all been informally discussed for quite some time; our colloquium offers an opportunity to discuss them as a whole.

At times - especially in connection with Item IV, the most controversial of the five - I shall be rather detailed; elsewhere a more summary presentation of the problems recommends itself.

A symposium on rhythmical questions is planned to take place in Hernen (The Netherlands) before long. If possible, a short report on these discussions will be made at the Washington colloquium (ad Item III).

I: LAY-OUT

Whenever possible, the musical texts should be printed in verse lines, not as consecutive prose. Although this arrangement will at times rest on arbitrary decisions, the overall structure of the melodies will be much more clearly seen than in the "neutral" way of the "Transcripta" (and of the manuscripts themselves).

The divisions and subdivisions of the poetico-musical text can usually be worked out on the basis of MeSi, punctuation dots, cadences, and the structure of the text itself. It is my experience that each text, as it were, "dictates" its own structuralization and that it is unwise and impractical to force the individual texts to follow one common pattern of presentation. During the years I have experimented with different kinds of lay-out:

My favourite is to print in long-verses, with some spacing between the elements which make up a long-verse; for this purpose, however, a normal book-format is too small. This problem can be solved in various ways, e.g. by using an oblong format (much better than the usual practice of turning the melodies 90 degrees on the page!), or by using extra reduction for the music (as I have done in the present paper).

The problem of format is most easily solved, however, if the texts are printed in short-verses - either with indentation as a means to indicate how these verses combine to form a long-verse (so, for instance, Amargianakis in CIMAGL 22-23), or - more neutrally, but less informative - with a straight left-hand margin.

Transcriptions of melismatic music have their own problems, because of the length of lines. Let me illustrate one possible solution by referring to Thodberg's treatment of the Plagios

Deuterios Allelouiaria in MMB Subsidia VIII, pp. 216-22. (For his particular purpose the straight RIGHT-HAND margin is eminently suitable, with its underlining of the importance of the cadences).

From an aesthetical point of view a verse arrangement is more satisfactory if the melody is given as a combination of neumes and "letter-notation"; but of course also a melody on staff can be arranged in lines of different lengths. (Incidentally, my preference for using "pitch letters" instead of the solmisation syllables is exclusively dictated by similar reasons of aesthetics; the solmisation syllables quite simply take up too much space. Otherwise they would be less misleading than letters which refer to some definite pitch - if we use letters, we constantly have to remind ourselves that we are dealing with "relative pitch", only!).

II: TRANSCRIPTION AND ORIGINAL NOTATION

The convertibility of the MMB transcriptions has always been praised, although the symbols adopted for the various neumatic signs have frequently been criticized. An amelioration of the symbol set is desirable, unless a full (and standardized) rendering of the original notation is preferred. The latter, however, is problematic (a) because of the difficulties in rendering "the red elements of notation", (b) because the published musical text cannot be fully used by non-specialist musicologists - nor, for that matter, for performance purposes - but only by those familiar with the Byzantine neumes.

Due to the changes in publication habits (e.g. the tendency to print in off-set from author's typed manuscript) it is much easier nowadays to combine transcription and neumes than it used to be in the days when the MMB transcription rules were laid down. The needs for a complete set of symbols for neumes etc. may therefore be less acute than they were at 1960 (the date of the most recent volume of MMB Transcripta, Tillyard's "Hymns of the Pentecostarion"). But still, there are cases and situations where our transcriptions have to be on staff alone. The following remarks deal primarily with such situations, but may at the same time be understood as my reasons for demanding the use of Byzantine neumes - whenever possible at all.

At the Vienna Congress in 1981 I suggested how both kinds of transcription (staff and letter-notation) might be combined, each of them serving their special purpose(s) - see the Congress Acts (JÖB 32/7) p.138.

Our rules of transcription were made, at least mainly, to serve the rendering of Stichera and Heirmoi as found in MSS from the "classical" period (12th - 13th cent., eventually also the next centuries, until the Fall of Constantinople). The later tradition (until the Reform of the Three Teachers in the early 19th century) and the entire repertories of melismatic chant (Asmatika, Psaltika, Akolouthiai, as well as the kalophonic versions of Stichera etc.) were disregarded. This in itself speaks for a revision and an enlargement of our set of symbols.

Leaving aside the "enlargement" (or completion; for the ideal must be to have a symbol for each of the Great Hypostases ...) I shall give a couple of examples to illustrate why I speak also about "a revision":


(a) Petasthe:

The MMB symbol for Petasthe (') conveys the idea of a single and stressed note (with a stressing different from that of the Oxeia, e.g.). Simon Karas and others have always protested against the idea that we have to do with one sound; to them, the Petasthe is a small flourish of several sounds. During the years my occupation with analyses of Stichera has led to a similar result. At present I do not want to go into any details; suffice it to mention the rhythmical variations of some well-known "line-openers" in Protos and Deuterios (the "EF a" and "Ga b" motifs). Fig.1 (see p. 38) shows three rhythmically different shapings of the Protos motif (a "short-form" and a "long-form" - respectively using Petasthe and Kratema - and a form where the "a-element" is split up on two syllables). Exactly the same three shapings occur in connection with the Deuterios motif - cf. the tabulation of Amargianakis's "Formula No. 9" (CIMAGL 23, p. 222). On the strength of such observations and in order not to commit ourselves to a too exact rendering, we might perhaps use "w" as Petasthe symbol - it would convey the "message" of this neume better than the traditional MMB-symbol.

As a consequence of this suggested change of symbol something has to be done for the Kouphisma (for which the ~ is the traditional MMB symbol). Genetically speaking the Kouphisma is to be connected with the Petasthe, and its function can clearly

be defined from the verse structure (Kouphisma being normally used on a paenultima stressing before a caesura); a new Kouphisma symbol ought to reflect both circumstances.

(b) Apoderma:

In "Handbook" p.25 the Apoderma is listed among the rhythmical signs which are used to lengthen a note. Originally (i.e. in the Handbook and in Wellesz's September Hymns) it was transcribed as a quaver with fermata, but already in Tillyard's November Hymns the transcription was changed into "a crochet with a Tenuto". The fermata symbol no doubt has been suggested by the shape of the Byzantine sign, especially in later Round Notation ().

Now, if we look at the way in which Apoderma is used, its function seems to speak against the traditional MMB interpretation; for the Apoderma is normally to be found at places where "the structure of thought and syntax demands that the singing continues without any stop" (I quote myself, from *Musica Antiqua* VII, Bydgoszcz 1985, p.187). Evidently the Apoderma belongs to what I usually call "the leading-on elements". Let me refer also to van Biezen, "The Middle Byzantine Kanon-Notation of Manuscript H" (Bilthoven 1968), p.21, where it is suggested to consider the interval after an Apoderma at line-end "a dead interval: the melody is interrupted there" - we might add: yes, but the rhythmical pulsus is not interrupted; the Apoderma is actually the first, strong element of a rhythmical unit (a *moúg*). I do not know what symbol to suggest to convey this idea - but certainly the fermata will not do. (At the Vienna Congress, my Example 6 tentatively rendered the leading-on Apoderma at *nowl* as a semiquaver plus a pause).










The red elements of notation (MeSi with their confirmatory neumes / musical variants / Gorgon, Tzakisma, Hyporrhoe, etc. / Great Hypostases...) constitute a serious printing problem. Ideally, of course, such elements ought to be printed in red; but this procedure makes printing more difficult - and also more expensive. What else can we do? I have frequently discussed this point with Dr. Sten Ebbesen, the editor of our Institute's series (the CIMAGL), and the best solution he could offer was to print everything in black, putting all "red elements" in square brackets.

This is far too clumsy. (For an example, see Høeg's introduction to the facsimile of Ashburnham 64, MMB IV pp.31 sqq.). Or: the red elements might be reproduced in black, but written with a thinner pen and in smaller script. This, however, presupposes a penmanship above average.

As we all know from experience, the red ink is a nuisance, also in other respects: It is frequently so pale that it can hardly be seen in the original, let alone on a microfilm; at other times the microfilm makes it impossible to distinguish red from black - involving the meticulous researcher in deep speculations, especially in the cases where both colours are equally possible, and nobody knows for sure whether or not the scribe's distinction carries some kind of message.

From our "Report" of 1958 I have already quoted the remark about convertibility (Byzantion 28, p.523), that the transcriptions - "as far as possible" - should be convertible into the original notation. A similar reservation is expressed by Strunk in his postscript to Tillyard's Handbook (p.52): "*within limits, it enables the reader of a transcription to form an exact mental image of the original notation it represents*". Behind such reservations lie difficulties encountered by all transcribers - whether they transcribe into staff-notation or reproduce what they find in the MSS in some kind of normalized standard neumes.

The examples are legio; let me just mention a few:

- (a) *Kylisma*. Apparently, some scribes use  and  indiscriminately, whereas others stick to one type throughout. It is my impression that scholars do the same - in other words: that we cannot from a transcription on staff with certainty conclude about the situation of the MS. (The same might happen also in case that we use normalized neumes; I have sinned in this respect myself!). The problem may be small; but it may have some consequences for our understanding of the rhythmic of the ornament - with the two *Oxeias* in immediate succession).
- (b) In the combination of two *Apostrophoi* + *Klasma* () one may hesitate: does the *Klasma* go with the first or with the second *Apostrophos*? (The situation is implied in Tillyard's remarks on *Klasma* - Handbook p. 25, which I quote below, on p. 8). Again, the two interpretations are rhythmically different; and again we can suspect our transcriptions for being normalized.
- (c) When *Dyo Kentemata* are used in connection with an *Oxeia*, we find either  or  in the MSS. We have never felt it necessary to make any distinction between the two in our transcriptions. But some scribes did, at least in the Coislin Notation period. At the Athens Congress I mentioned some strange cases from Berl. gr. fol. 49 (Actes, vol. II, 1981, p. 1004, examples 22-24): the original scribe of this MSS has carefully inserted a red  as a variant for  , or a red  for a black  . I am inclined

to believe that this puzzling detail has do to with pitch (or with the size of intervals); for we find exactly the same distinction elsewhere, e.g. in Floros's Tafel XVI and XVII (FUN III, pp.203-10):

♪ stands for bc in my Examples 22 and 24, and in Floros's XVI, line 14 and XVII,4); ♪ stands for ab, in my Ex. 23, for ab in XVI,13, and XVII,1, 2, and 5. The observations call for further investigation, and for exact quotations from the sources.

III: RHYTHM

As long as we transcribe by means of a combination of pitch letters and neumes, the validity of our transcriptions will not suffer by any lack of understanding the rhythmical subtleties of the neumatic text. But as soon as we try to render the Byzantine melodies on the staff, we run into problems. To be sure, the Byzantine notational systems dispose of signs which indicate different kinds of lengthening, and they have also a sign for shortening (the Gorgon); but the exact implications of these "lengthenings" and "shortenings" are not known - nor, for that matter, does the neumatic system contain any reference to pauses whatsoever. (These shortcomings of the older notations were remedied by the Reform of the Three teachers, but as usually we cannot - or ought not - use the practice and theory of the early 19th century directly for our interpretation of the medieval and postmedieval sources. For the latest end of the "Old Notation", see M.Ph. Dragoumis, A contribution to the study of the interpretation of Late Byzantine notation (International Musicological Society. Report of the eleventh congress, Copenhagen 1972, pp. 751-57).)

At the Vienna Congress I dealt with the Rhythmical Problem (JÖB 32/7 pp. 63-72), and in the spring or early summer of 1986 a symposion on rhythmical questions is planned to take place in the Netherlands. In between - at the Egon Wellesz Symposium in Vienna, October 1985 - John Bergsagel has surveyed Wellesz's ideas about rhythm, especially in Gregorian chant. At present, dealing with fields where I do not agree with the transcription methods of the MMB, I shall not involve myself in discussions about other rhythmical theories (Riemann, the early Tillyard, Jammers, van Biezen, etc.). All I shall do is to direct your attention to some shortcomings of the method and to some details of the written tradition of medieval Byzantine

music which may be helpful if we want to improve our transcriptions.

As I see it, the main shortcoming of our method is intimately connected with the laudable principle of convertibility: Our transcriptions are meant to convey the same as the neumatic texts themselves; and since these are imprecise as to rhythmical indications and completely lack information about pauses, our "translations" should share these imperfections - in the name of scholarly objectivity. Evidently, this claim of objectivity went well together with theories about "free rhythm". However that may be, it is obvious that one cannot directly sing as prescribed in the Transcripta volumes. Tillyard - who always seems to have had potential performers of his transcribed melodies in mind - has some interesting remarks in the Handbook, *à propos* the Klasma: "For anyone unused to free rhythm it may be difficult to sing a dotted quaver between plain quavers; but almost the same effect may easily be gained thus: - (1) If the Klasma affects one member of a group of notes, e.g. $\text{♩} \text{♩} \text{♩}$ this may be sung as a triplet: $\text{♩} \text{♩} \text{♩}$ or in reverse order: $\text{♩} \text{♩} \text{♩}$ = $\text{♩} \text{♩} \text{♩}$. (2) If the Klasma stands over a single syllable, we may add a semiquaver rest ♩ = $\text{♩} \text{♩}$." (Handbook p. 25).

The juxtaposition of 128 versions of one Byzantine melody which I printed in Appendix B of my dissertation (MMB Subsidia VII, 1966, pp. 181 sqq.) contains several examples of the Klasma-situations which Tillyard had in mind. Let us have a closer look at the first of these (the last syllables of *τα τραμοντα* on p. 182A and its parallels on 182B-183B):

The readings most commonly found are $\text{♩} \text{♩} \text{♩}$, $\text{♩} \text{♩}$, $\text{♩} \text{♩} \text{♩}$, $\text{♩} \text{♩} \text{♩}$ (on "ba G", "b G", or "c G"). According to the "literal" MMB interpretation the reading of my "dux" (and Athens 883, D, etc.) would take up 3 $\frac{1}{2}$ quavers ($\text{♩} \text{♩} \text{♩}$), the reading of Staurou 30 etc. 3 quavers, Vatopedi 1492 etc. 2 $\frac{1}{2}$, Sinai 1218 only 2, and the MSS which have Dyo Apostrophoi on the last syllable (Sinai 1471, 1464, 1585) 4 $\frac{1}{2}$ or 4.

Now, Tillyard's addition of "a semiquaver rest", suggested for performers in situations where "the Klasma stands over a single syllable" (sic!) comes very close to the explanation which I should like to advocate for the "2 $\frac{1}{2}$ " of Vatopedi 1492:

that the scribes who wrote >~ >^ would expect this to be rendered as >~ > in actual singing: I suggest, in other words, that the third leap after Klasma in this situation should be filled out by a passing note (in casu an "a"). I furthermore suggest that this passing note was shortened (why not to a semiquaver, as Tillyard's small pause?) and that the written "2 ½" of Vatopedi 1492 would thus be sung as "3". The written "3 ½" - the most common reading in my MSS - should be similarly explained: the middle Apostrophos represents the very same sound (the short and passing "a"), but this time the interval is indicated by a neume - though conventions made it unnecessary to add a Gorgon.

Instead of the rhythmical variety implied by the literal interpretation, my explanation would thus be that here (and in very many other cases) the differences between the neumatic texts represent different ways of writing down the same sounding reality. (Of course, the versions with Double Apostrophos are not covered by this general explanation!)

In the above, I appealed to two scribal conventions:

- a) that the filling out of a descending third leap is not necessarily indicated (by an Apostrophos),
- b) that the note to be sung after a Klasma is shortened.

Evidently it would be useful - and not impossible, I believe - to draw a list of other scribal conventions which ought to be applied in our interpretation of Byzantine neumatic texts. It should not be forgotten, however, that there are numerous traps for an undertaking of this kind.

Thus, we cannot be sure that a musical formula will invariably have one and the same rhythmical shape. On the contrary, we have every reason to believe that rhythmical changes were quite normal - belonging, I suppose, to what we would nowadays call "the arrangement" of a melody. In Bareia groups, e.g., we find readings with and without Klasma: are these to be understood as graphical variations of one sounding reality, or as rhythmical variations? And is there or isn't there a difference between a black and a red Klasma in these Bareia groups? Considering the general implication of the use of red ink in our musical MSS - e.g. for musical variants and medial signatures, also Tillyard's "Little Kylisma" as an optional element - it

might very well be that a red Klasma contained a message about a rhythmically alternative performance of the Bareia group! (As far as I remember, Strunk's volumes of transcriptions from Mt. Athos again and again have a footnote that "this note is affected by a red Klasma"; I wonder why he was so excessively meticulous on this point.)

IV: ACCIDENTALS

The problems of accidentals in our transcriptions have always been intensely discussed, and various approaches towards a solution have been suggested. In the years after our last congress (Vienna) I have followed a new line of thought which forces me to abandon the MMB views on these matters. Far from being a post-medieval phenomenon, of "oriental" origin, the use of chromatic and other non-diatonic? - intervals and scales has been at home in Byzantine music as far back as our written tradition reaches, i.e. to the 10th or 11th century - as our Greek colleagues have always maintained. My ideas and the observations on which they are based, have been presented several times (Royal Danish Academy 1983, Sofia and Bucharest 1984, Bydgoszcz/Delphi/Vienna 1985), each time with more details and/or different purposes in mind; printed (or to be printed) are the papers from Sofia/Bucharest, Delphi, and Vienna.

For my hypothesis I use three well-established a priori's:

a) The Signatures (Martyriai) of the medieval MSS are graphical symbols for sung Intonations (Echemata).

b) Stable musical formulas (including the standard Echemata as indicated by their corresponding Signatures) preserve their interval relations also when transposed.

c) The intervals of an intercalated Intonation (also where the intercalation is only a possibility, indicated by means of the corresponding MeSi) must somehow correspond to ("reflect") the intervals of the melodic context.

This set of notions was convincingly used by Thodberg (Ohrid 1961) to establish an F-sharp in a well-known D-cadence of Plagios Tetartos Stichera. The transposed MeSi used by Thodberg would normally be δ'' (on D) and δ''^{\flat} (on a) - both presupposing the

intonation "a G F-sharp E D" (transposed from the 'normal' pitch of "d c b a G" - or $\dot{\text{a}}\dot{\text{c}}$ (on G instead of on c), implying as usually a halftone below it (F-sharp, corresponding to b-natural below c).

Already in my "Intonation Formulas..." from 1966 I drew attention (p.22) to some occurrences of the same MeSi, placed a fifth higher than in the cases from which Thodberg had inferred his F-sharp. But at the time I failed to realize their implication: that there ought to be a c-sharp somewhere in the melodic context, and that this c-sharp of the context would have consequences for our understanding of other MeSi which occurred in connection with the same context.

Examples 1-5 illustrate this point. (See pp. 22 - 25).

OBSERVATIONS AND REMARKS ON EXAMPLES 1-3c:

1. Examples 1-2c present the data of many MSS. For Ex.1 I have inspected 36 MSS, of which 27 have one or more MeSi; behind Exx.2a-c lie 47 MSS, of which more than 35 are provided with MeSi). I found no need to be as meticulous in Examples 3a-c.

2. Of transposed Tetartos-signatures and Nana with implied c-sharp there are only few (total number: 18), usually in one or two MSS only - but in Ex.1,4 the Nana is prescribed by several of the MSS inspected.

3. The c-sharp is implied by transposed MeSi of Tetartos and Nana in connection with the following formulas:

A) Ex.1,4 = Ex.2a,6 = Ex.3a,11

Found in D (1,4), Sinai 1216 (1,4), Coislín 41 (1,4), E a V (1,4), Sinai 1218 (2a,6 and 2a,7), and Sinai 1232 (2a,6).

B) Ex.2b,5 = 2c,16 = 2c,17

Found in Sinai 1218 (2b,5), Sinai 1224 (2b,5), Sinai 1564 (2b,5), Sinai 1220 (2c,16), Sinai 1232 (2c,16), Photiou 30 (2c,16?), Vatopedi 1492 (2c,17), Paris 260 (2c,18).

C) Ex.3a,12 = Ex.3b & 3c,21.

Found in D (3b,21 - a highly problematic case, cf. below, No. 6)..

In other words: A dozen of my sources have found it reasonable to reflect the c-sharp of these 3 formulas by means of

Tetartos or Nana signatures (D, Paris 260, Coislin 41, E a V, Vatopedi 1492, Photiou 30, Sinai 1216, 1218, 1220, 1224, 1232, and 1564). Or, to put it differently: The MeSi of the 12 MSS can hardly be understood, if there was no c-sharp in these formulas.

4. In Tillyard's note to 3b,21 (quoted above) it is impossible to see whether the words "certainly wrong" described also the Deuterios MeSi of Athens 883 and N, or only the mysterious fifth-leap. Anyhow, the frequency of Deuterios MeSi in connection with our three formulas clearly demonstrates that such MeSi were deliberately used in "c-sharp contexts". More than 50 occurrences in a total of 20 MSS exclude that we have to do with scribal errors or mistakes!

5. These Deuterios signatures represent the standard Deuterios intonation which we use to understand as "b a G", occurring here in a transposition to "e d c". But how can this c-natural be felt suitable for the present melodic contexts? I can think of two explanations, only:

(a) There were two traditions for these musical formulas, one with c-sharp, the other with c-natural.

(b) The lowest interval of the Deuterios intonation was not (as we have always thought) a major one, but a small interval - to be rendered as c-sharp (a transposed G-sharp) in our approximate transcription to Western notation.

Now, there are at least two reasons for choosing the second of these explanations: For one thing, at least 6 of the MSS involved in the present investigation seem to use both types of MeSi (D, Coislin 41, Paris 260, Photiou 30?, Sinai 1216, 1218, and 1564). My other - more important - reason is the following consideration: The assumed c-sharp of the transposed Deuterios intonation equals an untransposed G-sharp, with an intonation which begins "b-natural a G-sharp"; if this descent is continued to the E, the medieval finalis of the Deuterios melodies, we pass the F-natural - thus creating the augmented second "F-natural G-sharp", the most characteristic interval of postmedieval chromaticism. Nowadays (i.e. since Chrysanthos's descriptions in the Eisagoge from 1821), the so-called "chromatic diapason" would

approximately correspond to "D E-flat F-sharp G a b-flat c-sharp d" - a progression which would be identical with the one from E just referred to, provided there is a d-sharp in its upper tetrachord ("E F G-sharp a b c d-sharp e"). In the Tetartos Sticherá of Exx. 1-3c, we thus have the lower tetrachord (transposed) as "a b-flat c-sharp d" - above which we would expect "e f-natural g-sharp a".

Below I shall give further evidence for non-diatonic intervals in the E-modes (Deuterós, Plagios Deuterós, Nenano)- from the use of Enarxis in Palaeobyzantine, Late- and Postmedieval MSS and from the system of dots used for teaching purposes in Copenhagen NKS 4960, 4to.

6. For the moment I have no explanation to offer for the bewildering fifth-leap at Ex. 3b,21. The five MSS in which it is found are chronologically and otherwise so widely spread that they cannot be genetically related, and the two formulas involved (end of 20 and beginning of 21) are standard formulas which in themselves should present no difficulty. The difficulty seems to be the exact size of the leap itself.

7. In Ex. 1,3 the reading of the Vienna MS ("D") differs from what we find in the other MSS inspected, the majority reading on $\tau\omicron\upsilon$ ελεους σου being "d bc de cb a". The private version of D is no doubt to be understood as a preparation of the chromatic passage; for it is a well-known formula of the E-modes (see e.g. Sept. No. 21,12 as published by Amargianakis in CIMAGL 23, p. 137). This is why I have indicated the chromatic alteration without any MeSi-support.

8. Finally, the Nana on "g" in Ex. 2a,5 should be noticed. The f-sharp which it implies, makes the notes which are realized in line 5 sound like a fifth-transposed Tetartos.

My next examples (Exx. 4a-b and 5, see pp. 24-25) display a remarkable stability of the tradition. Ex. 4a shows Johannes Glykys's late-medieval version of Eothinon IV, taken from a source of the 18th century. If one compares this setting with the Emperor's melody in its classical shape (MMB Transcripta V, 66-68)

and adjust the latter to its correct pitch - a fifth higher than in Tillyard's transcription - it is immediately seen that more than 75% of the old melody has been preserved by Glykys, in pitch as well as in the flow of the melody. Ex. 4b shows two extracts from D, Tillyard's source; we here observe two MeSi of the types discussed above - in both cases found in connection with melodic formulas which we have already met (line 7 is "formula A" from Ex. 1,4 etc., in line 13 we have "formula C" from Ex. 3a etc.). On both MeSi Tillyard had critical remarks (p.68): If the MeSi "at 6. fin." is really a Nana, "this would again be wrong"; the Deuterios signature in line 13 is "a wrong signature" - and "a very common mistake" (Tillyard's verdict, in brackets). From our previous observations it seems that both MeSi are perfectly OK; but only if we take them to imply the use of non-diatonic intervals.

Now, in Ex. 4a we find an Enarxis at both these places - evidently to mark the beginning of a modulation to a section with a different arrangement of intervals - and at both places the return to diatonic intervals is duly signaled (by the Protos MeSi in line 7 and the Tritos Phthora in line 13). NB. The third "chromatic" passage (line 10) is introduced by Enarxis and "dissolved" by means of the Nana on c at the end of the line; there is no MeSi in D, but the line consists of two of our well-known formulas.

For Example 5, the Eothinon of Barys, I can refer to my detailed argumentation for the accidentals of my transcription, a Roumanian translation of my lecture from Bucharest being on its way.*) The Deuterios signatures before lines 11 and 12 represent a so-called "parachordé", where the "a" is felt to be a "b-natural", and the chromatic intervals accordingly form the progression "D E-flat F-sharp G a b-flat c-sharp d". Line 14 is a well-known cadential formula of the Deuterios modes (see e.g. Sept. No. 23,11, CIMAGL 23, p.140), but in our Eothinon it is transposed a fourth upwards; a MeSi of Plagios Deuterios in the Palaeobyzantine MS Patmos 218 before line 13 shows that the fourth-transposition started already with line 13 (where the "a" was consequently felt as an "E"). The return to the Barys mode is

*) "Cromatism în cîntul bizantin și postbizantin. Un nou punct de vedere asupra unei vechi probleme" (Studii de Muzicologie XX, 1986)

made at the end of line 14, by means of the leading-on element which is here found a fifth above its "normal" pitch (see end of lines 7 and 8); the Eothinon ends in Barys, transposed a fifth upwards. (This end on b-flat is thus perfectly understandable, *pace* Tillyard *ad loc.* - MMB Transcripta V, p.75).

Also in Eothinon VII the chromatic passages have been preserved in postmedieval tradition, cf. Sebastian Barbu-Bucur's transcription from Filothei's "Psaltichie rumânească" (Filothei sin Agâi Jipei Psaltichie Rumânească. II, Anastasimatar, (= Izvoare ale Muzicii Românești VII B), pp. 292-94).

In note 1, p.294, M. Barbu-Bucur lets line 13 (my counting of lines) start afresh from E, because of the Plagios Deuterios MeSi - a "marturia cromatica" which "indica pe *mi* de unde trebue sa se continue" - and in note 2 he makes an emendation of the neumatic text of the MS, adding an Apostrophos near the end of line 14. He is thus able to let the transcription end on F. Without these two emendations the pitch of the Roumanian MS will follow that of Sinai 1218 and the melody will end, correctly, on b-flat.

The MeSi in this part of the melody - all of them retrospect, according to the later practice - are Barys after line 11, Plagios Deuterios after lines 12 and 13, and Nana after line 14 (to mark the return to non-chromaticism), see the facsimile *ibid.* p. 104 (fol. 108r, lines 5-7), where the transposed Nenano-Phthora on the "d" of line 14 reflects the c-sharp and b-flat in the "body" of the formula - as we saw above, it is the leading-on element at the end of the line which gives up the chromatic intervals and return to Barys intervals again. (There are, of course, a number of disagreements in our transcription of the chromatic passage, due to our different ideas about the chromatic intervals).

In the preceding I have used sporadic MeSi of non-chromatic modes (Tetartos and Nana) to find c-sharps in the melodic context, and MeSi of the E-modes (where the chromatic interval of an augmented second is at home in Chrysanthine theory and practice) occurring in connection with such "c-sharp contexts" have been used to suggest that these passages are to be interpreted as "chromatic". The most natural inference was that the Deuterios MeSi of my examples conveyed (signalized/ implied) that Deuterios (and, *a fortiori*, also its Plagal and the Nenano) was chromatic already in the Middle Ages, as far back as our written tradition goes. (The extent and the exact nature of this chromaticism is still undefined: my point has simply been to suggest a new approach towards a solution of this old and much debated problem).

We shall now have a look at two quite different kinds of arguments for the same: (a) the use of Enarxis in Palaeobyzantine, Late- and Postbyzantine MSS; (b) the dots in the Copenhagen MS NkS 4960, 4to.

(a) The Enarxis:

We saw in Ex. 4a that the postmedieval MS placed an Enarxis at the beginning of every "chromatic" passage (lines 7, 10, 13), and that non-chromatic MeSi were used to mark the end of the modulations. In Ex. 2c, 16 Paris 262, Sinai 1471 and Sinai 1586 used Enarxis at the beginning of "formula B", evidently with a similar function. It must be this use of the Enarxis which is reflected in a passage of some Papadikai, at the end of the paragraph on the Phthorai - e.g. IGLM 3, 8^o fol. 12v: λέγεται δὲ παρὰ τοῖς παλαιοῖς φθορὰ καὶ ἡ ἐναρξίς. The implications of the Late- and Postmedieval Enarxis are not yet fully clear to me; perhaps it was not limited to strictly chromatic passages, but was used more generally for "changes of interval structure in general" - cf. the other occurrence mentioned above (ad Ex. 2a, 7 where Sinai 1221, Athens 883, and N have an Enarxis exactly where the return from chromatic to non-chromatic intervals takes place).

If we turn now to the Palaeobyzantine tradition (both Coislin and Chartres) we find once again Enarxis in related situations:

(a) In Exx. 2a, 6 and 2c, 16 the start of the chromatic modulation is marked with Enarxis in almost all Coislin MSS inspected (absent only in Patmos 218).

(b) Above the initial "g" in Ex. 2a, 5 (where the tradition seems to waver between f-sharp and f-natural) the two Stichera behave differently: In Πάντα τὰ ἔθνη most MSS are silent (Sinai 1214 alone has a Plagios Protos MeSi); but at the corresponding place in Ἰσραὴλ ὁσμάτων no less than 5 MSS use the Enarxis (Sinai 1217, Ohrid 53, Messina 110, Saba 361 & 610), evidently implying the f-sharp.

(c) Two further cases indicate a similar broadness in the use of Enarxis: I take both from November No. 73 (Χεῖρὶ Θεοῦ χρι-

οθς(ς), where Enarxis is used before lines 9 and 10 in Ohrid 53 (and no doubt other Coislin MSS); before line 9, the Chartres MSS Andreaskiti 18 and Lavra Gamma 74 have a μέσος-abbreviation, at line 10 they have nothing - but in Sinai 1219 we here find an Enarxis (cf. CIMAGL 40, pp. 9-11 in Peter Weincke's "New Page of Andreaskiti 18").

NB. Further studies of the Palaeobyzantine Enarxis and its apparent "rediscovery" after a gap of several centuries (Koukouzeles?) are likely to deepen and modify the suggestions put forward in the preceding.

(b) The dots in NkS 4960,4to:

During the discussions at the Vienna Congress in 1981, van Biezen suggested that the "rhythmical" dots which were added to one Sticheron in this Copenhagen MS had nothing to do with rhythm, but were somehow to be connected with pitch. In my paper I had only quoted the beginning of the piece, so my suggestion about an eventual connection with chromaticism had to be put forward with reservation (JÖB 32/7, p. 138). I have now had a look at the rest of the melody, and found my first suggestion to be entirely correct: The system of dots applied to this particular melody is clear and simple: With one exception (already mentioned in Vienna, and still unexplained) a single dot is invariably placed on the pitches "D, F, a, c", whereas a double dot is to be found on "E, G, b, d". Evidently, then, single dots are used for notes which have a small interval below them, double dots for notes above a large interval - but this is only valid, if the underlying scale was chromatic (approximately "C-sharp D E F G-sharp a b c d-sharp e"). I have found the dots in another Sticheron in the same MS (Ὁ πνεύματι ἀγίῳ, fol. 2v), but here the dotting stops after a few lines.

NB. For the lower part of this scale, it is interesting to observe that the C-sharp implied by the single dot on D corresponds exactly to what Amargianakis described in CIMAGL 22, p. 105, note 1, with reference to "the modern system of Byzantine music".

On the preceding pages I have mustered some details of the written tradition which all seem to imply alteration of intervals : transposed MeSi and transposed musical formulas;

Enarxis;

the "didactic" dots in Copenhagen NKS 4960, 4to.

My aim being to demonstrate that the diatonic interpretation advocated by the MMB transcription rules has to be considerably modified, I have concentrated on one aspect of the complex and have produced my evidence for the augmented second (F G-sharp).

Our Greek colleagues have always maintained that their tradition has faithfully preserved the inheritance of the Byzantine past, also in its multitude of scales (diatonic, chromatic, and enharmonic - each of which with several subtypes). For methodological reasons I still consider it important not to make any direct application of Chrysanthine theory of the early 19th century on the medieval tradition, but rather to work on the medieval MSS themselves and carefully evaluate their data. Chrysanthine theory, however, and contemporary practice may very well be used to guide our steps.

Considering the consequences of my observations for our understanding of the tonal system(s) of medieval Byzantine music - and remember, please, that in the above I have dealt mainly with one phenomenon, only, the augmented second of chromaticism - and for a better appreciation of the phenomena of modulation, my method and material should be critically examined. If I am wrong - e.g. if there are flaws in my reasoning or if my observations can be explained in a more simple way - I for one would gladly be corrected.

At the end of my paper for the Wellesz Symposium (Vienna, October 1985) I listed some of the main difficulties still having to be solved. Let me repeat myself: "Bis jetzt habe ich Ihnen verschwiegen, dass viele Handschriften an gerade den Stellen, wo die von mir besprochenen transponierten Zwischensignaturen mit chromatischer Implikation vorkommen, diatonische Signaturen verwenden - etwa Nana auf c, &''-4 auf d, und &''-4 auf e. Die Beobachtung ist ganz klar, kann uns aber zu ganz verschiedenen Erklärungen leiten - oder vielleicht sogar verleiten. Mögliche Erklärungen sind z.B.:

1. Für die Passagen, die ich hier beschrieben habe, gab es im Mittelalter zwei Singweisen, eine chromatische und eine diatonische. Ilona Borsai hat mir mal eine koptische Parallele erwähnt: eine Melodie, die von demselben Sänger einmal diatonisch, das andere Mal chromatisch gesungen wurde - und der Kopte erklärte ihr ausdrücklich, dass es dieselbe Melodie sei. Frau Borsai hat

deshalb vorgeschlagen, dass die Chromatisierung einer Melodie doch ein Sekundär-Phänomen wäre, gerade "eine Färbung" (χρῶμα); das Wichtige wäre dann die Melodiefügung, nicht die Intervallgrößen.

2. An Thodbergs Hypothese über ein spezielles konjunktes Tonal-System des kontakarischen Stiles hat Husmann vorgeschlagen, dass die Signaturen zu zwei (oder mehreren) Typen gehören, und macht eine Distinktion zwischen sticherarische und nicht-sticherarische Signaturen. Die beide Typen sehen zwar identisch aus, werden aber mit verschiedenen Implikationen angewendet.

3. Eine dritte Möglichkeit ist von den Späthbyzantinern selbst angedeutet worden. Sie machen nämlich bisweilen eine Distinktion zwischen Signaturen ἀπό παραλλαγῆς und Signaturen ἀπό μέλους. Diese Signaturen ἀπό μέλους (die also "aus der Melodie" gesetzt werden) könnten sehr wohl nicht nur den transponierten Zwischensignaturen, worüber ich jetzt gesprochen habe, sondern auch untransponierten Anfangs- und Zwischensignaturen, die sich in den melodischen Kontext ohne Weiteres einfügen lassen, entsprechen. Die andere Gruppe, die Signaturen welche ἀπό παραλλαγῆς auftreten, würde dann zu dem melodischen Kontext im Widerspruch stehen. Vielleicht sind solche Signaturen als stumme Elemente aufzufassen, möglicherweise gesetzt, um eine Orientierung der Tonhöhe zu ermöglichen. Das ist aber auch recht problematisch und bedarf weiterer Untersuchungen.

4. Endlich macht mir der spät- und nachbyzantinische "Legetos" Schwierigkeiten. Die Beschreibungen dieser Quasi-Tonart stimmen nicht überein, aber bisweilen wird der Begriff für eine nicht-chromatische Form des Deuteros oder Plagios Deuteros verwendet. Wie es damit in der mittelalterlichen Musik war, liegt mir noch im Dunklen."

To these difficulties I would like to add one more, in connection with Example 4a, lines 10-11: The problem is caused by the Nana on c (c-natural!) following upon a melodic formula which apparently contains a c-sharp. I discussed this case with Mr. Angelopoulos on our way from Delphi to Athens last September, and he mentioned that similar difficulties are to be found in modern prints of the Chrysanthine tradition - difficulties which I got the impression that neither he nor other Psaltai really knew how to solve. Maybe the return to non-chromatic intervals happened at the very end of the phrase (as I think I can show for Ex. 5,14) - or could it be that the actual pitch of the c-sharp was used for the following c-natural? In other words: Is it possible that the melody was imperceptibly "lifted" by a halftone and that this higher pitch was kept in the following as well? I have a feeling that the Psaltes would have less difficulties in this hypothetical situation than his Isokratai, but that those who would really run into trouble would be us, the transcribers. But let us hope that a more simple solution can be found for this small *aporia*!

V: THE EXEGETICAL INTERPRETATION

The radically different understanding of Byzantine musical manuscripts which is part of the so-called "exegetical interpretation" constitutes a serious problem for an exchange of ideas and results between scholars of different observance. The situation calls for some consideration, also from a purely practical point of view. Is it at all possible to make transcriptions which at the same time can satisfy opponents and advocates of

a theory which claims that the neumatic texts - as found, e.g., in a 13th cent. Sticherarion - are only outlines ("skeletons") of what was actually being sung on the basis of this very same manuscript?

Evidently, opponents and advocates of such a theory will not find it equally difficult to answer my question. For an advocate of the theory, the intense study of even the smallest variants of the written tradition - such as my own contribution to the Athens Congress in 1976, Amargianakis's analyses in CIMAGL 22-23, Annette Jung's study of the Ordinary Psalms in Sinai 1255 (CIMAGL 47, pp. 3-63), to mention a few random examples - may be considered a kind of "using a steamroller to crack nuts"; but if he wants to, he will have no difficulty in producing transcriptions which satisfy our needs. For this point I need only refer to Stathis's analysis of Τὸν ἥλιον κρύψαντα (SEC IV, 1979, pp. 177-227), where Germanos's melody is presented with neumes + pitch letters (of the "skeleton", that is!) whereas the exegesis by Gregorios Protopsaltes (in Chrysanthine notation) is accompanied by a transcription on the staff. In this actual case, the juxtaposition of "skeleton" and exegesis serves a specific purpose, and both set of transcription should be studied together. But the presentation itself might very well be imitated also in less specific contexts. Also in this respect I am looking forward to Stathis's forthcoming edition of Akakios Chalkeopoulos in MMB's Corpus Scriptorum de Re Musica; for I understand that a similar double transcription is here envisaged.

The opposite seems to be much more difficult. For even if we wanted to, it would be impossible for us to provide transcriptions à la MMB with plausible exegeses of scholarly interest. At the moment, then, I cannot see what we can do for our "exegetically minded" colleagues - unless it were to quote abundantly from MSS with many Great Hypostases (for the Sticherarion e.g. Sinai 1586).

With these remarks I have pointed out some areas where the transcription rules of the MMB in my opinion are unsatisfactory

or misleading. We are all of us deeply indebted to the Fathers of these Rules, to Oliver Strunk, and to other scholars of the pioneer generation. But this feeling of admiration and gratitude should not prevent us from trying to improve and sharpen our tools of work, including the way in which we make the written sources accessible for scholarly interpretation. As I see it, the situation calls for a thorough revision of our transcriptional practice and methods. But how can we accomplish that? Certainly not - at least not for the moment nor for the near future - by imposing any new set of rules (issued by some kind of an official "Revision Committee"). But maybe it would be a good idea, if we formed a standing "discussion club on questions of transcription". For geographical reasons the discussions of this club might feasibly be carried on in the shape of informal "leaflets" circulating among those who want to join.

Abbreviated Literature:

- CIMAGL = Université de Copenhague. Cahiers de l'Institut du moyen-âge grec et latin, publiés par le directeur de l'Institut
- FUN = Constantin Floros: Universale Neumenkunde I-III. Kassel 1970
- JÖB = Jahrbuch der österreichischen Byzantinistik
- MMB = Monumenta Musicae Byzantinae
- SEC = Studies in Eastern Chant

Example 1: Νῦν καιρός εὐπρόσδεκτος (δ), Vienna Theol. gr. 181,205r

1 Νῦν καιρός εὐπρόσδεκτος 2 νυν η-με-ρα σω-τη-ρι-ας
 3 εν τω πλη-θει του ε-λ-ε-ους σου 4 ε-πι-σπε-ψαι μου την ψυ-χην
 5 και το φορ-τι-ον των α-νο-μι-ων μου 6 α-νε-ς μο-υ-ε φι-λαν-θρω-πει-

Example 2a: Πάντα τὰ ἐθνη (δ), Sinai 1218,114r

5 ο-τι εν ευ-λω υ-ψω-σεις 6 και εν τα-φω κα-τελ-θων 7 τον α-δην ε-σφυ-λευ-σεν

Example 2b: Δεῦτε φιλομάστορες (δ), Sinai 1218,114v

4 α-νε-τει-λεν η-μιν 5 πυ-κα-ζων αν-θη τα λο-γι-κα 6 η παγ-κο-σμι-ος μνη-μη...

Example 2c: Δεῦτε τῶν πιστῶν (δ), Sinai 1216,114v

16 ο-περ η-μων παμ-μα-καρ 17 τον των ε-λ-ων α-να-κτα 18 χρι-στον των θε-ων η-μων

Example 3a: Ἡ βασιλεῖα σου (δ), (Sept. No. 6), Vienna Theol. gr. 181, 2v

9 ευ-λο-γη-σον τον στε-φα-νον 10 του ε-νι-αυ-του 11 της χρη-στο-τη-τος σου
 12 και κα-τα-ξι-ω-σον η-ν ε-λ-ε-ους σου 13 α-κα-τα-κρι-τως βο-αν σοι
 14 κυ-ρι-ε δο-ξα σοι:-

Example 3b: Τὴν καταβόαν φύσιν (δ), (Pent. No. 68), Vienna Theol. gr. 181, 266r

19 ου-τος ε-ν-ος αν-θρω-πος θε-ος 20 δε-ος αν-θρω-πος πι-λιν ε-λευ-σε-ται
 21 η-ν και νε-κρων 22 πι-στοις δε δω-ρου-με-νος α-μαρ-τι-ων ουγ-χω-ρη-σιν 23 και το με-γα ε-λε-ος:-

Example 3c: The same Sticheron, Sinai 1230, 251r

.... πα-λιν ε-λευ-σε-ται 21 η-ν και νε-κρων 22 πι-στοις:-

Supplementary Information on Examples 1-3g:

Example 1: I have inspected 36 MSS and found one or more MeSi in 27 of these; the total number of MeSi is 62. For our present concern the following are of interest:

Before line 4: $\tilde{\alpha}$ on d in Vienna 181 ("D"), Sinai 1216, Coislin 41, Grottaferrata E & V.

Before 5 (i.e. after 4): $\tilde{\gamma}$ on c: Sinai 1216 & 1225.

Example 2a: Seen 47 MSS, 35 of which are provided with MeSi. The same melody is used for the Sticheron Αἴσμα δόξασιν of the same feast (April 23); its data are included in the following. For lines 5-7 of these two Sticheria we notice the following MeSi:

Before 5, on g: $\tilde{\alpha}$ in Π(αυτῶν): Sinai 1221 & 1230, $\tilde{\alpha}$ E & I (without neumes); in Α(ἁγῶν): D, Sinai 1216 & 1221.

Before 6, on e: $\tilde{\gamma}$ in Π: Paris 260 & 261, Sinai 1225, 1564, 1586; in Α: Paris 260 & 261, Sinai 1225 & 1564, Athens 883, Cardiff MS ("N").

$\tilde{\delta}$ in Π: Sinai 1218; $\tilde{\delta}$ and $\tilde{\gamma}$ in Π: Sinai 1232.

Before 7, on c: $\tilde{\gamma}$ in Π: Taphos 533, Staurou 307, Sinai 1564; in Α: Sinai 1225 & 1564, and Staurou 30 ($\tilde{\gamma}$).

on d: $\tilde{\alpha}$ in Π and Α: Sinai 1218.

NB In Α, above the d, there is an Enarxis (L) in Sinai 1221, Athens 883, and N.

Example 2b: Same MSS as for Ex. 2a, the majority provided with MeSi. Notice the following MeSi:

Before 5, on e: $\tilde{\gamma}$ Paris 261, Coislin 41, Photiou 30, Staurou 30, Taphos 528 & 533, Sinai 1225 & 1586; $\tilde{\delta}$ Sinai 1218, 1224, 1564.

on c: $\tilde{\gamma}$ Sinai 1216.

Before 6, on c: $\tilde{\gamma}$ Staurou 30, Sinai 1225 & 1564, E & I ($\tilde{\gamma}$, without neumes).

on d: $\tilde{\gamma}$ Sinai 1216.

Example 2c: Same MSS as Ex. 2a, the majority with MeSi. Interesting MeSi:

Before 16, on e: $\tilde{\gamma}$ Paris 261 & 264, E & II, Staurou 30, Taphos 528 & 533, Sinai 1216 & 1225, Athens 883, Copenhagen 4960, and Jasi IV, 39; $\tilde{\delta}$ Sinai 1220 & 1232.

on d: $\tilde{\alpha}$ Photiou 30

NB. Enarxis on e in Paris 262, Sinai 1471 & 1586.

Before 17, on e: $\tilde{\gamma}$ Sinai 1216; $\tilde{\delta}$ Vatopedi 1492.

Before 18, on e: $\tilde{\delta}$ Paris 260. (NB. No other MS has MeSi before line 18).

Before 19, on c: $\tilde{\gamma}$ Sinai 1216, Staurou 30.


Example 2d: Seen D, Sinai 1216 & 1230. In Sinai 1230 the only MeSi is $\tilde{\delta}$ on G before 9.


Sinai 1218 has $\tilde{\gamma}$ on b before 9, $\tilde{\alpha}$ on d before 10, and $\tilde{\gamma}$ on c before 12 - fitting to its melody which is slightly different from that of D and Sinai 1230, though identical to it in the places which at present interest us, viz. line 11 and the melisma on ἁμῶς in 12.


Examples 3b-g: Edited by Tillyard (MMS Transcripta VII, 93-95) from Athens 883, N, and D. In his comments to line 21 Tillyard says: "DNA all read an ascending fifth at the beginning of this line and before it the signature of Mode II (=b) which is certainly wrong. A later hand in N gives clearly an ascending sixth (Hypesele over Oligon) which I follow." I have inspected 14 dated MSS and checked Tillyard's information on D, N, and Athens 883. The 14 MSS, chronologically listed, are: Sinai 1218 ("1177"), D ("1217" or "1221"), Sinai 1231 ("1236"), Vatopedi 1492 ("1242"), Coislin 41 ("1244"), Sinai 1472 ("1275"), Paris 261 ("1289"), Vatopedi 1499 ("1292"), Meteora 291 ("1297"), Sinai 1221 ("1321"), Sinai 1464 ("1321"), Sinai 1586 ("1331"), Sinai 1230 ("1365"), Sinai 1229 ("1374").


The fifth-leap is found in D (MeSi $\tilde{\alpha}$) and (with MeSi $\tilde{\gamma}$, usually + confirmatory Ison) in Sinai 1218, Paris 261, Athens 883, and N. Also in Sinai 1472, without MeSi and on e (because of a different melodic progression). The sixth-leap (to e) is found with MeSi $\tilde{\gamma}$ in Coislin 41, Sinai 1221 & 1464, and without MeSi in Vatopedi 1499, Sinai 1229 & 1586; also in Sinai 1230, with double MeSi. As a third-leap the e is given in Meteora 291, Vatopedi 1492, and Sinai 1231; in the latter there is a MeSi without nonconfirmatory Ison ($\tilde{\gamma}$), according to the habits of the scribe - cf. my "Intonation formulas...", p. 15.


Example 4a: Eothion No. 4, Copenhagen, IGLM 1,8^o, 112v


1  $\overline{\text{Op}}-\overline{\text{θ}}\overline{\text{p}}\overline{\text{oc}} \quad \overline{\eta\nu} \quad \overline{\text{Ba}}-\overline{\text{θ}}\overline{\text{u}}\overline{\text{c}} \quad \overline{\text{mai}} \quad \overline{\text{ai}} \quad \overline{\text{yu}}-\overline{\text{va}}\overline{\text{t}}-\overline{\text{ke}}\overline{\text{c}} \quad \overline{\eta\lambda}^{\text{a}}-\overline{\text{θ}}\overline{\text{on}} \quad \overline{\text{on}}$
G d d GaGaF_g G d c d ef d ef d ef e d c d g f e d d


3  $\overline{\text{alla}} \quad \overline{\text{ta}} \quad \overline{\text{ou}}-\overline{\text{ma}} \quad \overline{\text{ouk}} \quad \overline{\text{eu}}-\overline{\text{re}} \quad \overline{\text{a}}-\overline{\text{f}} \quad \overline{\text{e}} \quad \overline{\text{f}} \quad \overline{\text{gfe}} \quad \overline{\text{f}} \quad \overline{\text{e}} \quad \overline{\text{d}}$
d a d ef g a' f e f gfe f e f gfe f e d c


5  $\overline{\text{oi}}-\overline{\text{θ}}\overline{\text{e}} \quad \overline{\text{a}}-\overline{\text{po}}-\overline{\text{rou}}-\overline{\text{me}}-\overline{\text{vai}}\overline{\text{c}} \quad \overline{\text{oi}} \quad \overline{\text{tai}}\overline{\text{c}} \quad \overline{\text{a}}-\overline{\text{stra}}-\overline{\text{pi}}\overline{\text{tou}}-\overline{\text{oi}}\overline{\text{ai}}\overline{\text{c}} \quad \overline{\text{ai}}-\overline{\text{oth}}\overline{\text{e}}-\overline{\text{oi}}\overline{\text{v}} \quad \overline{\text{e}}-\overline{\text{pi}}-\overline{\text{stan}}-\overline{\text{te}}\overline{\text{c}}$
g ge f cd fe d d g gfe f ga' d ef d ef a' g e f f cd fe d d


7  $\overline{\text{ti}} \quad \overline{\text{ton}} \quad \overline{\text{zwn}}-\overline{\text{ta}} \quad \overline{\text{me}}-\overline{\text{ta}} \quad \overline{\text{twn}} \quad \overline{\text{ve}}-\overline{\text{krwn}}$
e e e ec_g d c_g b_g c_g d c d gded ef d d


8  $\overline{\eta}^{\text{a}}-\overline{\text{vro}}-\overline{\text{θ}}\overline{\eta} \quad \overline{\omega}\overline{\text{c}} \quad \overline{\text{pro}}-\overline{\text{ci}}-\overline{\text{pe}} \quad \overline{\text{ti}} \quad \overline{\text{a}} \quad \overline{\text{ti}} \quad \overline{\text{a}}-\overline{\text{myn}}\overline{\text{e}}-\overline{\text{mo}}-\overline{\text{vei}}-\overline{\text{te}} \quad \overline{\text{rh}}-\overline{\text{ma}}-\overline{\text{twn}} \quad \overline{\text{au}}-\overline{\text{tou}}$
d c d g gfe f ga' def ef de a f f f e defefg bag fg ef gded ef d d d

10  $\overline{\text{oi}}\overline{\text{c}} \quad \overline{\text{pe}}\overline{\text{t}}-\overline{\text{oi}}-\overline{\text{ce}}\overline{\text{c}} \quad \overline{\text{oi}}\overline{\text{c}} \quad \overline{\text{ta}} \quad \overline{\text{o}}-\overline{\text{ra}}-\overline{\text{θe}}\overline{\text{v}}-\overline{\text{ta}} \quad \overline{\text{e}}-\overline{\text{p}}\overline{\text{h}}-\overline{\text{ou}}-\overline{\text{tton}}$
e fd e c_g d c_g f e f e e g e e e ec_g c_g ec_g d c_g b c


11  $\overline{\text{a}}-\overline{\text{lla}}^{\text{a}}-\overline{\text{e}}-\overline{\text{θo}}-\overline{\text{kei}} \quad \overline{\lambda\eta} \quad \overline{\text{a}}-\overline{\text{po}}\overline{\text{c}} \quad \overline{\text{ta}} \quad \overline{\text{eu}}-\overline{\text{θe}}-\overline{\text{p}}\overline{\text{p}}\overline{\text{e}}-\overline{\text{li}}-\overline{\text{a}}$
c d ef d f e f a' g f e c d gd ed ef d d

12  $\overline{\text{du}}-\overline{\text{twc}} \quad \overline{\eta}^{\text{a}}-\overline{\text{θan}} \quad \overline{\text{ti}} \quad \overline{\text{vw}}-\overline{\text{θe}}\overline{\text{c}} \quad \overline{\text{oi}} \quad \overline{\text{ma}}-\overline{\text{θn}}-\overline{\text{tai}} \quad \overline{\text{a}}-\overline{\text{lla}}^{\text{a}} \quad \overline{\text{pe}}-\overline{\text{t}}\overline{\text{p}}\overline{\text{oc}} \quad \overline{\text{e}}-\overline{\text{θra}}-\overline{\text{me}}$
ef fed e d ef c e f a' a' fg e f g ef ga' a' b_g a' gf ga' fe d

 $\overline{\text{mai}} \quad \overline{\text{e}}-\overline{\text{θo}}-\overline{\text{ta}} \quad \overline{\text{e}}-\overline{\text{θo}}-\overline{\text{ta}} \quad \overline{\text{e}}-\overline{\text{θo}}-\overline{\text{ta}} \quad \overline{\text{e}}-\overline{\text{θo}}-\overline{\text{ta}}$
a f d e c_g d e g f e e f gfe f f c_g f e g f edc d c

14  $\overline{\text{pro}}\overline{\text{a}} \quad \overline{\text{e}}-\overline{\text{au}}-\overline{\text{ton}} \quad \overline{\text{ta}} \quad \overline{\text{θau}}-\overline{\text{ma}}-\overline{\text{oi}}-\overline{\text{a}} \quad \overline{\text{g}}\overline{\text{fe}} \quad \overline{\text{eg}} \quad \overline{\text{a}}-\overline{\text{gf}} \quad \overline{\text{gf}} \quad \overline{\text{g}}\overline{\text{a}} \quad \overline{\text{q}}$
f e d cdb c d gded ef d g gfe fg a'gf gf g a' q d c d

Example 4b: The same, Vienna Theol. gr. 181, 308r

6  $\overline{\text{e}}-\overline{\text{pi}}-\overline{\text{stan}}-\overline{\text{te}}\overline{\text{c}} \quad \overline{\text{ti}} \quad \overline{\text{ton}} \quad \overline{\text{zwn}}-\overline{\text{ta}} \quad \overline{\text{me}}-\overline{\text{ta}} \quad \overline{\text{twn}} \quad \overline{\text{ve}}-\overline{\text{krwn}}$
cd fe d d d d d d ac_g d c_g b_g c_g d






















































































13  $\overline{\text{all}} \quad \overline{\text{o}} \quad \overline{\text{pe}}-\overline{\text{t}}\overline{\text{p}}\overline{\text{oc}} \quad \overline{\text{e}}-\overline{\text{θra}}-\overline{\text{me}}\overline{\text{v}} \quad \overline{\text{mai}} \quad \overline{\text{e}}-\overline{\text{θo}}-\overline{\text{ta}}$
ef g g e f e d e c_g d u g f e

Fig. 1: The "EF a" line-opener (September Stichera; neumes from D)

No. 52:	 δα C	 υι E	 τι F	 κως a	 βο GF	 ων EFG	 τες G	 και a	 λε EF	 γον D	 τες D		
No. 2:		 τω EF		 κο a	 σιω G	 το EF	 με G	 γα a	 ε EF	 λε D	 ος D		
No. 26:		 και E	 δο F	 χει a	 ον G	 θε EF	 ου G						
No. 26:	 και F	 ευ E	 λο F	 γει ab _b	 τω a	 του G	 θε EF	 ον G					
No. 2:	 και G	 εκ E	 μη F	 ον ab _b	 των a	 εις G	 το EF	 ει G	 ναι a	 πα F	 ρα E	 γα D	 γων D
No. 1:		 ων E	 ταις F	 μνει a	 αις G	 κοι a	 νω E	 νοιν FE	 τες D				
No. 101:		 λυ E	 τρω F	 θη a	 ναι G	 λα a	 ον EFF						
No. 101:	 του GF	 προ E	 αι F	 ω ab _b	 νι a	 ον G	 λο a	 γον EFF					
No. 1:	 λυ D	 σι E	 τε F	 λως ab _b	 πε a	 ραι G	 ω a	 σαι EFF					
No. 43:		 α E	 να F	 μα ab _b	 κτους a	 θυ Ga	 σι a	 ας D					